

HEADS OF AGREEMENT

Heads of Agreement made as of this first day of July, 1980 between Celanese Corporation, a Delaware Corporation and its wholly-owned U.S. subsidiaries, including Celanese Chemical Company, Inc., a Texas Corporation all hereinafter referred to as "Celanese" and Redox Technologies Inc., a New Jersey Corporation, hereinafter referred to as "Redox."

- I. Through meetings, discussions and correspondence, Celanese and Redox have made certain disclosures one to another and have developed certain arrangements between themselves as evidenced in part by the following;
  - A. Letter from Redox to Celanese, dated October 11, 1979.
  - B. Confidence Agreement between Celanese and Redox, dated October 23, 1979.
  - C. Letter from Celanese to Redox, dated November 2, 1979, transmitting the "disclosure fee."
  - D. Booklet "Redox's Ethylene Glycol Process" given to Celanese by Redox November 2, 1979 (Redox I).
  - E. Booklet "Redox's Ethylene Glycol Process" given to Celanese by Redox March 21, 1980 (Redox II).

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- II. Celanese and Redox hereby agree, in consideration of the sum of one hundred thousand dollars (\$100,000) payable by Celanese to Redox upon the signing by both parties of this Heads of Agreement, which payment shall be non-refundable, promptly to enter into the negotiation, in good faith, of a definitive agreement to contain, in substance, the following provisions:

DEFINITIONS

- 1.0 The "Field" shall mean the Redox process for the manufacture of ethylene glycol (EG) involving a series of steps as follows:
- A. The manufacture of tertiary butyl hydroperoxide (TBHP) by the reaction of isobutane and oxygen,
  - B. The manufacture of di-tertiary butyl peroxide (DTBP) by reaction of TBHP and isobutylene,
  - C. The manufacture of EG as well as the simultaneous manufacture of coproducts including glycerine, t-butanol, acetone and others by the free radical induced dehydrodimerization of methanol using peroxides, such as DTBP, with or without the simultaneous free radical induced addition of methanol to formaldehyde,
  - D. Optionally, the manufacture of isobutylene from t-butanol, and
  - E. Such purification steps as may be required to obtain a final product suited for its intended use including the purification of EG to obtain fiber-grade EG.
  - F. The Field also shall include related processes using organic peroxides for the manufacture of EG in which the overall sequence of steps remains the same, but one or more intermediate steps has been omitted or replaced by an equivalent or comparable step or a new step has been added.

- 1.1 "Net Sales Value" shall mean A times B where:
- A is the respective gross invoice sales to the trade in terms of U.S. dollars per pound or ton less, where actually allowed or given; trade, cash and quantity discounts; sales fees to sales agents or distributors not employees of Celanese; transportation, insurance, and delivery costs; VAT, sales, and turnover taxes; duties; and returns or credits given in lieu of returns or for customer settlement purposes and B is the respective number of pounds or tons of EG, glycerine, acetone, and t-butanol sold or used, but not recycled or burned.
- 1.2 "R&D Phase" shall mean the period of time during which Celanese, with the cooperation of Redox, shall conduct research and development activities in the Field and Celanese shall pay fees to Redox as more particularly set forth in section 2 hereof.
- 1.3 "Commercial Phase" shall mean the period of time following Celanese Board of Directors approval for the first Celanese plant in the Field until termination of the definitive agreement or, if no such approval is given within 7 years of the date of the definitive agreement, shall mean the period of time following termination of the R&D Phase and ending June 30, 2005.

- 1.4 "Celanese Affiliates" shall mean those firms with respect to which Celanese owns at least 40% of the shares entitled to vote for Directors and, in those countries where governmental authorities limit such ownership, firms with respect to which Celanese owns the maximum percentage of shares permitted by the local government.
- 1.5 "North America" shall include the United States, Canada, Mexico and other countries north of and including Panama.
- 1.6 "Celanese Technology" shall mean all Celanese technology now existing or hereafter developed or acquired by Celanese on or prior to the earlier date of (a) termination of the definitive agreement or (b) two years following start up of the first Celanese commercial plant, which technology Celanese possesses with a right to license others.
- 1.7 "Redox Technology" shall mean all Redox technology now existing or hereafter developed or acquired by Redox on or prior to the earlier date of (a) termination of the definitive agreement or (b) two years following start up of the first Celanese commercial plant, which technology Redox possesses with a right to license others.
- 1.8 "Celanese Patents" shall mean all Celanese patents, pending patent applications and patents issuing from

such applications now existing or hereafter developed by Celanese on or prior to the earlier date of (a) termination of the definitive agreement or (b) two years following start up of the first Celanese commercial plant, which patents Celanese possesses with a right to license others.

- 1.9 "Redox Patents" shall mean all Redox patents, pending patent applications, and patents issuing from such applications now existing or hereafter developed by Redox on or prior to the earlier date of (a) termination of the definitive agreement or (b) two years following start up of the first Celanese commercial plant, which patents Redox possesses with a right to license others.

RESEARCH AND DEVELOPMENT PHASE

- 2.0 Celanese, with the cooperation of Redox, shall conduct such research and development in the Field and shall pilot one or more of the steps thereof as Celanese deems advisable with a goal to achieving, by the end of 5 years from the date of the definitive agreement, Celanese Board of Directors approval for a commercial plant in the Field. If such a goal is attained before the end of the 5th year, the R&D Phase then shall cease and the Commercial Phase shall begin. If such goal is not attained by the end of the 5th year, Celanese shall have a right to extend the term of the R&D Phase for a 6th year and, if such goal

is not attained by the end of the 6th year, for a 7th year. During the term of the R&D Phase, the following shall apply:

- 2.1 Celanese shall pay Redox reasonable travel and living expenses for Redox personnel who are away from their home location at the request of Celanese in connection with Redox cooperative work with Celanese plus fees as follows:

\$110,000 July 1, 1981

\$121,000 July 1, 1982

\$133,100 July 1, 1983

\$146,410 July 1, 1984

\$300,000 (if there is a one year extension of the  
R&D Phase) July 1, 1985

\$500,000 (if there is a second one year extension  
of the R&D Phase) July 1, 1986.

The above payments shall be non-refundable but shall be a credit to be applied one fifth against each of the first five years of running royalties Celanese pays to Redox.

- 2.2 Celanese shall, with respect to all Celanese Patents and Redox Patents and with the cooperation of Redox, but at the expense of Celanese, conduct all patent searches, patent drafting, patent filings, patent prosecution, workings and maintenance of patents in a list of major EG producing countries, which list shall be agreed for each patent application, but Celanese shall

have a right to limit foreign filings, in which case Redox may elect at its own expense to effect more extensive foreign filings, prosecute such additional foreign filings, and maintain the additional foreign patents granted. Title to all patents shall be with the inventing party.

2.3 Celanese and Redox recognize that patent infringement and defense against infringement are expensive. Celanese suggests that, in North America, Celanese should have a right to enforce all the patents and defend against infringement and, in other countries, Redox should have a right to enforce all the patents and defend against infringement. Also, the party which controls the litigation should keep the damages or other recovery, if any.

2.4 The minimum level of Celanese R&D work in the Field during the R&D Phase shall be the following fully allocated costs:

First year - \$1,000,000

Second year - \$1,300,000

Third year - \$1,690,000

Fourth year - \$2,197,000

Fifth and suc-

ceeding years- \$2,856,100 per year.

It is agreed that the first year, in terms of accounting



for such minimums, shall terminate June 30, 1981 and that succeeding years shall be 12 months each and follow one after the other starting on the appropriate July 1.

The accounting practices used in calculating Celanese R&D expenditures under the definitive agreement shall be those used by the Corpus Christi Technical Center of Celanese Chemical Company in the normal course of accounting for other Corpus Christi Technical Center R&D expenses.

- 2.5 Celanese shall make progress reports to Redox and both parties agree to correspond, meet, discuss, and interchange information in the Field during the R&D Phase and, should Celanese continue into the Commercial Phase, for two years after the start up of the first Celanese commercial plant in the Field.
- 2.6 Celanese feels John Kollar is vital to the success of this project. Redox warrants it has a right to enter into the definitive agreement and has a contract (copy to be attached to the definitive agreement) with John Kollar appropriate to the purposes of the definitive agreement, and for the full term thereof, and will not alter such contract in a substantive manner during such term. Celanese suggests the parties discuss a provision whereby Redox will remain an independent R&D and licensing corporation with no shares owned, directly or indirectly, by any organic chemical manufacturing firm during the R&D Phase of the definitive agreement.

- 2.7 Redox agrees to make John Kollar available at Celanese facilities in the United States for consultation with Celanese for up to 30 days per year during each year of the R&D Phase. If agreeable to Redox, John Kollar will be made available for additional days for additional consultation fees. Days which John Kollar spends with Celanese patent attorneys on patent matters shall be treated as consulting days under this section.
- 2.8 Redox agrees to continue its own R&D work in the Field under the direction of John Kollar during the R&D Phase of the definitive agreement and to keep Celanese informed concerning the same.
- 2.9 Until June 30, 2005, each party agrees to maintain in confidence and to require all licensees, sub-licensees and contractors to maintain in confidence for at least 15 years all technology in the Field except as required to effect the purposes of this Agreement. In addition, Redox agrees to maintain in confidence and not to use that Celanese technology and that technology which Celanese holds under confidence outside the Field to which Redox may gain access through its consultations with Celanese hereunder. Obligations in this section 2.9 shall not apply to technology which (i) the receiving party can demonstrate was known to it prior to October 23, 1979 or (ii) has been or is

published through no fault of the receiving party or (iii) is received from a third party as a matter of right provided, however, that technology which is specific as to equipment, products, operating conditions, specific materials used, etc. shall not be within the three exclusions merely because they are embraced by general disclosures or information.

2.10 Celanese may terminate the definitive agreement at any time during or at the end of the R&D Phase by giving 60 days written notice to Redox. In the event of such termination, Redox shall have a non-exclusive right to license to others all Celanese Patents and Technology conceived before termination to the extent the same are within the Field, and the following shall apply:

- A. If termination occurs after the critical major process steps in the Field have been demonstrated on a pilot plant basis, Celanese thereafter shall receive a 40% share of all third party royalties collected by Redox, and Celanese and Celanese Affiliates shall enjoy a non-exclusive right to use and operate under all Redox Patents and Technology in the Field with terms as set forth in Section 3.6 and for a royalty which is 150% of those set forth in Section 3.6.
- B. If termination occurs earlier than A above, Celanese

and Celanese Affiliates shall enjoy a non-exclusive right to use and operate under all Redox Patents and Technology in the Field, the terms being as set forth in Section 3.6 with the royalty rates as follows:

- (i) Termination prior to July 1, 1981, royalty shall be 250% of those set forth in Section 3.6.
- (ii) Termination between July 1, 1981 and June 30, 1982, royalty shall be 225% of those set forth in Section 3.6.
- (iii) Termination between July 1, 1982 and June 30, 1983, royalty shall be 200% of those set forth in Section 3.6.
- (iv) Termination between July 1, 1983 and June 30, 1984, royalty shall be 175% of those set forth in Section 3.6.
- (v) Termination on or after July 1, 1984, royalty shall be 150% of those set forth in Section 3.6.

2.11 Celanese shall have the right to utilize, under appropriate secrecy/non-use agreements, any third party consultants, engineering contractors, and the like which Celanese may elect to help with

Celanese R&D in the Field and to design, engineer, construct and operate both a pilot plant and commercial plants in the Field for Celanese and Celanese affiliates.

COMMERCIAL PHASE

- 3.0 Should Celanese continue the definitive agreement into the Commercial Phase, the following shall apply:
- 3.1 Redox agrees to continue to make John Kollar available for fees to be agreed for up to 10 days per year for up to two years following the start up of the first Celanese commercial plant for design, start up and operational consultation in the Field.
- 3.2 Celanese shall have a right under Redox Patents and Technology in the Field to design, engineer, construct and operate a commercial plant or plants and to sublicense others in the Field in North America, which right shall be exclusive for North America except for the United States for the term of the definitive agreement and shall be exclusive for the United States for a term which expires ten years following the commercial start up of the first Celanese commercial plant in the United States.
- 3.3 Redox shall have an exclusive license and sublicensing rights under Celanese Patents and Technology in

the Field in other than North America.

3.4 The parties agree that approved contractors shall include, subject to the conclusion of reasonable terms in an agreement, Davy Ltd. of London, England. Celanese reserves the right to restrict or limit admission to its facilities in the Field to any contractor to which Celanese may have objections.

3.5 Redox agrees it will license in the Field under its then normal licensing terms any Celanese Affiliate and any third party company Celanese nominates outside of North America and that it will grant no licenses inconsistent with this commitment. Celanese suggests that where a licensed Celanese Affiliate elects to receive all know-how and technical help directly from Celanese, the Affiliate should receive a lower royalty rate.

3.6 Celanese and Celanese Affiliates in North America shall pay to Redox for the first and subsequent Celanese commercial plants in the Field in North America, running royalties which are the lesser of:

A. 2½% of Net Sales Value or

B. One third of the lowest rate Redox grants to any other party during the first four

years of commercial operation of the first Celanese plant, however, in no event less than 3/4 of 1% of Net Sales Value.

The term during which Celanese shall pay such running royalties for each such commercial plant shall be the shorter of:

- A. 10 years from the date of commercial start up of the commercial plant or
- B. Three fourths of the shortest term in any license Redox grants to any other party during the first four years of commercial operation of the first Celanese plant.

Provided, however, that at the end of the fifth year of commercial operation of the first Celanese plant at capacity or after the equivalent production over a period longer than five years, the Celanese running royalty rate in North America shall be reduced to the lower of:

- A. 80% of 2¼% of Net Sales Value, or
- B. that percentage of the total new plant EG design capacity, then in commercial operation in the United States (including Celanese design capacity), which has been licensed in the Field commencing with the commercial operation of the first Celanese plant in the Field multiplied by

2½% of Net Sales Value.

Provided further that in the event Redox grants to any third party licensee in the Field a paid up "cap" on royalties, Celanese shall enjoy a paid up "cap" which is equal to 75% of the lowest "cap" granted any such third party.

GENERAL PROVISIONS

- 4.0 The following shall apply for the term of the definitive agreement:
- 4.1 Redox grants to Celanese an option, together with a right of first refusal, to acquire a license from Redox on terms similar to those in the definitive agreement (R&D Phase as well as Commercial Phase) with respect to a process or a step or steps of a process as set forth in the definition of the Field, which process, step, or steps of a process lies outside the Field but is based upon the process or the steps in the definition of the Field.
- 4.2 The parties recognize that technology and process steps within or similar to those within the Field may have potential applications wherein less than 20% of the Net Sales Value of end products is EG, exclusive of peroxide derived co-products. In such cases, Celanese agrees that Redox may license and sub-license under Celanese Patents and Technology



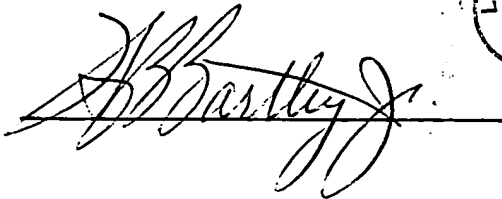
in North America and Redox agrees that Celanese shall receive from Redox licensees a running royalty equal to 6% of the Net Sales Value of the EG produced by the licensee for so long a term as Redox collects a royalty on the products other than EG, but in no event for less than 10 years for each licensee.

- 4.3 Redox agrees to split equally with Celanese all royalties Redox collects in the Field during the Commercial Phase from other than Celanese and Celanese Affiliates.
- 4.4 All licenses in the Field by both parties shall permit the unrestricted sale of EG in all countries by all licensees and sub-licensees.
- 4.5 The definitive agreement shall terminate June 30, 2005 following which Celanese and Celanese Affiliates shall have a fully paid up license and Redox shall not share any royalties with Celanese.
- 4.6 The definitive agreement shall contain a number of standard provisions not herein itemized such as a force majeure clause, what law applies, and the like.
- 4.7 The definitive agreement shall supercede all prior agreements, verbal and written between the parties, including the October 23, 1979 secrecy agreement

between Celanese Chemical Company and Redox and including this Heads of Agreement.

- 4.8 After receiving the first payment hereunder and while the parties hereto draft, negotiate and sign a definitive agreement based upon these Heads of Agreement, Celanese requests that Redox not sign any agreement with any third party in the Field.

CELANESE CORPORATION



A handwritten signature, likely "J. Bartley", is written over a horizontal line.



Date: July 31 1980

REDOX TECHNOLOGIES INC.



A handwritten signature, likely "John Kollar", is written over a horizontal line.

PRESIDENT

Date: July 31, 1980